

Remarks

The above-referenced application has been reviewed in light of the Examiner's Office Action mailed on January 9, 2008. Claims 1 and 3-5 have been amended, and new Claims 9-12 have been added. Therefore, Claims 1-12 are currently pending in this case. The Examiner's reconsideration of the rejections is respectfully requested, particularly in view of the above amendments and the following remarks.

In accordance with the Office Action, Claims 1-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Medical Image Processing, Analysis and Visualization in Clinical Research by McAuliffe et al. in view of U.S. Patent Application Publication No. 2005/0228250 by Bitter et al.

Amended Claim 1 recites, *inter alia*, a "method for processing image data, comprising: obtaining formatted image data; automatically extracting meta-data from fields of the image data; automatically processing the meta-data to identify a target object; automatically classifying and labeling medical volumetric features of the image data using a set of information-based directives corresponding to the identified target; automatically measuring pertinent features of the image data according to a specified protocol responsive to the directives; automatically generating one or more composite images of the target object with corresponding labels and feature measurements based on one or more of the directives; and automatically storing the one or more generated images in a digital archive."

McAuliffe et al. is generally directed to a graphical user's interface (GUI) designed to make it easier for people to manually work with the image data. It shall be

understood that the GUI of McAuliffe et al. does not actually perform the automatic processes of Applicants' presently claimed invention, but merely assists persons in manually performing materially different processes that happen to provide comparable results.

The published patent application by Bitter et al. shares three common inventors with the present application, and is subject to the same duty of assignment as the present application, namely to Viatronix, Inc. Accordingly, the published application by Bitter et al. is unavailable as a reference for the purposes of 35 U.S.C. § 103(a) by operation of 35 U.S.C. § 103(c).

It shall be understood that embodiments of the present invention determine the particular application (e.g., Carotid artery imaging) from meta-data included with the formatted image data, and generate composite 2D and/or 3D images and movies directed to each such application. Measurements, such as diameters of arteries and the like, are taken automatically and an automatic diagnosis may be performed, such as of stenosis or plaque. Such features may be automatically matched back to the original 2D images.

Thus, preferred embodiments perform background automatic processing based on the nature of a given set of input images (e.g., Carotid artery), and perform fully automatic processing, without any human intervention or manual tasks, to generate 3D snapshots and 2D movies, for example. Such embodiments can read images formatted according to the Digital Imaging and Communications in Medicine (DICOM) standard, generate directives from the system using knowledge or information-based processing,

which may also be known as expert system processing, using automatically associated directions or instructions. Reformatted composite output images, such as with measured dimensions added, are then provided to doctors for diagnosis purposes.

Conclusion

Accordingly, it is respectfully submitted that amended independent Claim 1 is in condition for allowance for at least the reasons stated above. Since the remaining claims each depend from one of the above claims and necessarily include each of the elements and limitations thereof, it is respectfully submitted that these claims are also in condition for allowance for at least the reasons stated, as well as for reciting additional patentable subject matter. Thus, each of Claims 1-12 is in condition for allowance. All issues raised by the Examiner having been addressed, reconsideration of the rejections and an early and favorable allowance of this case are earnestly solicited.

Respectfully submitted,

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